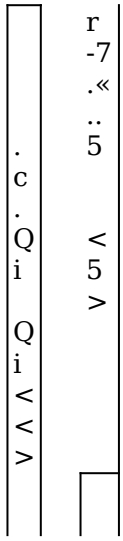
conditions arc as before, the natural buoyancy is altered as follows :—
The weights of the individual gas columns are as under:—
in <M/'I Air ;i-| r> x 1-1»<>;J7 —
In <th <<as f> xO'o ....
In /»<• (»:is (.) x O'oJSS .--..-:
i <i;is vS-1 X0«l>7;> : H
(Air (»•<> x 1 -liitf 7-U)-
'I\»t,nl :J T(>ta,l
K
Kg. Kg.
or 5'fJJ) lcilo«j[nuninoH nor squaro metre, or 5*89 millimetres hoi^ht of wai(u*. Tho buoyancy is now, owintf to Uui fon^oin^ arran^e-inont of th<^ producer, loworal by I I



Moan of &/)tr«t nce to - --- -- . . J L ** < /

regene rator ^ v.

2. Bl'OYANCY OF Am.
As the air is hid cold into the furnace and as the entrance opening is placed close to the air regenerator chamber, the calculations of the buoyancy can bo taken an corro-
i<\ICL $f
spending to a. two-branched U tube
system, of which the. length of the branches are equal, whilst t.ho dilTerence of level between the air entrance to the chamber and the air port in the, furna.ce in the previously given place amounts to i> motroK. The one branch of the U tube is filled with cold, the other in taken as being filled with air of a mean leniperatnro of f>00°. On both branches the same air pressure p openUen.
At 0' a volume of air in 1 and the weight of 1 cubic metre is I'iiN kilogramme. At GOO" the volume of air is 3*2 and its weight OMO'l kilogramme.
The weight of the air in the cold branch is 9 X 1'29 = H'61 kilogrammes.
The weight of the air in the hot branch is 9X0'404=3*64 kilogrammes.